



Experience with TVWS has validated the Dynamic Spectrum Sharing model.

It is supported by a wide ranging ecosystem.

SBI platform manages 10,000+ incumbents, much more than just fixed DTT transmitters – it is not complicated.

SBI is now replicating this platform globally.

If you accept the concept of the SAS as a dynamic policy manager then we don't need to know all the answers or solve every problem before we start.



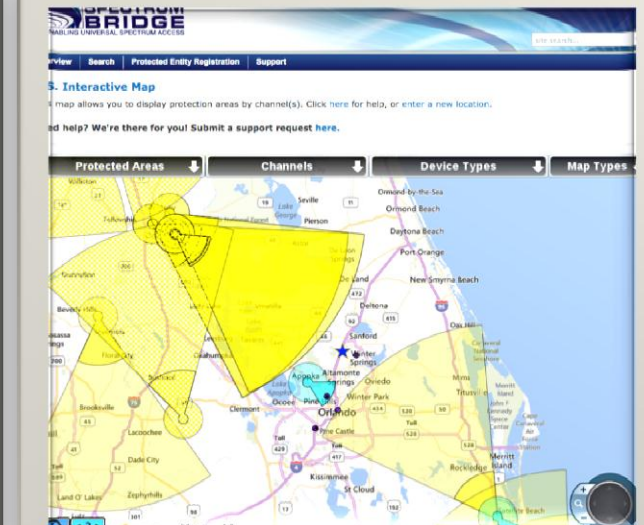
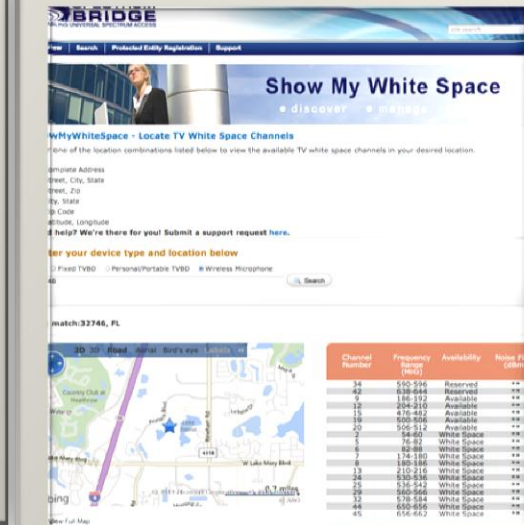
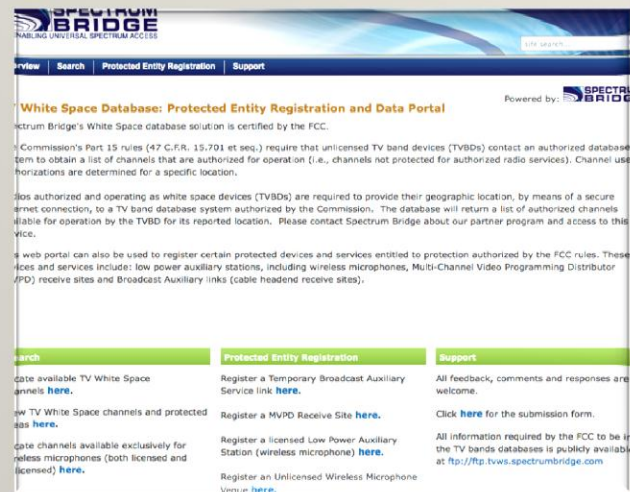
Spectrum Bridge certified the first TVWS database solution in December 2011  
System has experienced Constant Evolution  
We expect the Evolution to continue  
Evolution has been required for many reasons:

Error corrections

New Rules/Policy (2012 NPRM)

Experience

With no change to any of the certified and deployed radio devices





## The SAS as a Policy Manager

Policy can be both flexible and granular

Why is a corn field the same as a city center?

Or 2am the same as 2pm?

By specific device type

By specific location

By Specific Frequency

By Time

By “user”

And complex combinations

“if density of users at this location exceeds the threshold then....”

Determining the policy is the hard part, implementing/verifying it happens once, then it is just repetitively running machine code!





Some simple examples of how evolution of white space policy could result in significantly more white space - without any change to certified/deployed devices.

### Directional Antenna

Current rules assume all Antenna are omni directional, results in much greater separation distances



### Variable Power

Current rules assume all fixed devices operate at 4W, in reality non are certified at more than 1 watt, results in separation distances twice as big as necessary





Experience in White Space tells us that defining the SAS as a dynamic policy manager it is possible to start quickly, with an initial set of policies, and easily adapt and expand those policies into a more effective, efficient and dynamic spectrum policy environment based on experience and changing environment over time.

The objective being for a wireless network to acquire situational awareness and consume only what spectrum is necessary while making the best use of otherwise fallow spectrum assets. While the SAS is the ideal place to start adding the intelligence of the radio (sensing) can significantly improve the capability

The technology exist to accomplish this today (success will be *defined* by policy, and *enabled* by technology).